

Thermometer ascensions made at Bergen Point, Bayonne, N. J., by the Bayonne kite corps.

Number.	Ascension.			Kite record.			Local conditions.				New York.				Average daily temperature observed by Mr. Eadie, at Bayonne, N. J.		
	Date.	P. M.		Altitude.	Temperature.		Temperature.		Wind.	Sky.	Temperature.		Winds during ascensions.		Same day.	Second day.	Third day.
		Began.	Ended.		Max.	Min.	Begin-ning.	End-ing.			Begin-ning.	End-ing.	Direction.	Velocity.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		H. M.	H. M.	Feet.	°	°	°	°			°	°		Miles.	°	°	°
61	February 7, 1899.....	8 40	9 40	400	23	22	23	22	nne.	Cloudy.	28	28	ne.	20	24.5	25.5	11
62	February 11, 1899.....	9 50	10 10	200	12	8	12	12	nw.	Cloudy and snowing.	8	8	nw.	12	6	8	9
63	February 13, 1899.....	8 00	8 30	100	10	6	10	10	nw.	Cloudy; snowstorm.	4	4	ne.	38	9	17.5	16
64	February 22, 1899.....	2 10	3 45	942*	56	49	56	56	sw.	Partly cloudy.	47	49	w.	9	43.5	40	33.5
65	February 27, 1899.....	9 15	10 15	.....	36	31	34	31	w.	Clear; moonlight.	40	40	nw.	26	42.5	36	40
66	March 25, 1899.....	8 15	9 35	753	32	30	32	32	se.	Cloudy; snowing.	31	31	se.	20	34	39	36.5
67	April 17, 1899.....	7 20	7 45	300	52	48	51	50	ws.	Clear.	59	58	n.	19	49.5	50.5	52.5
68	April 22, 1899.....	4 35	5 22	400	57	52	56	53	s.	Clear.	55	52	se.	13	48.5	59.5	57.5
69	April 23, 1899.....	9 05	9 17	300*	45	43	44	44	sw.	Clear.	48	47	s.	10	48.5	59.5	57.5
70	April 23, 1899.....	9 35	10 45	325*	48	43	44	43	sw.	Clear.	47	46	sw.	10	48.5	59.5	57.5
71	April 23, 1899.....	8 12	9 50	750*	66	61	64	61	ssw.	Partly cloudy.	64	63	sw.	18	58	68.5	59.5
72	April 23, 1899.....	5 21	9 02	600*	68	58	66	58	sw.	Clear.	64	56	se.	14	57	65	72
73	April 23, 1899.....	9 32	10 00	300*	56	54	56	56	sw.	Clear.	56	56	s.	12	57	65	72
74	May 6, 1899.....	5 32	5 55	250	62	60	61	61	ssw.	Partly cloudy.	58	59	se.	8	59	64	59
75	May 6, 1899.....	8 27	10 26	2,100*	61	56	60	59	ssw.	Cloudy.	61	59	sw.	13	59	64	59
76	May 20, 1899.....	9 42	10 45	500*	54	50	54	50	nw.	Partly cloudy.	54	53	nw.	24	55.5	58	58.5
77	May 30, 1899.....	10 17†	12 03	715*	79	70	78	82	w.	Partly cloudy.	72	76	w.	12	70	74.5	76.5
78	May 30, 1899.....	8 50	8 30	1,687*	85	73	84	80	ws.	Partly cloudy.	79	79	nw.	20	70	74.5	76.5
79	May 30, 1899.....	.....	.....	500*	84	77	84	80	ws.	Partly cloudy.	.....	.....	.....	.....	70	74.5	76.5
80	June 3, 1899.....	8 37	10 45	1,605*	70	66	70	66	sw.	P. cloudy to clear.	71	63	s.	7	74.5	71.5	79
81	June 8, 1899.....	8 42	9 37	400	82	76	82	76	w.	Clear.	82	81	n.	14	78.5	75	68.5
82	June 12, 1899.....	9 32	10 17	410*	68	66	67	66	sw.	Clear.	67	66	se.	11	68	71.5	80.5
83	June 19, 1899.....	8 47	9 30	481	75	72	75	70	ws.	Partly cloudy.	75	75	sw.	7	73	80.5	75
84	June 23, 1899.....	8 50	9 26	400	72	66	72	69	sw.	Partly cloudy.	66	66	s.	12	68	79.5	74
85	June 24, 1899.....	4 05	4 58	563*	92	80	92	84	sw.	Partly cloudy.	82	79	se.	8	79.5	74	75
86	June 24, 1899.....	8 55	9 34	325	72	68	72	69	ne.	Cloudy and shower.	72	71	ne.	12	79.5	74	75
87	June 27, 1899.....	8 21	9 02	600*	72	70	70	70	ssw.	Partly cloudy.	72	71	s.	20	73	73	71
88	June 29, 1899.....	8 20	9 35	1,480*	70	65	70	64	nw.	Clear.	71	69	nw.	21	71	69	68.5
89	July 1, 1899.....	8 50	9 18	600*	68	66	68	66	s.	Clear.	.....	.....	.....	.....	68.5	75	79.5
89	July 4, 1899.....	11 05†	12 00‡	400*	91	84	91	91	s. to sw.	Partly cloudy.	.....	.....	.....	.....	78.5	78	78
90	July 4, 1899.....	1 55	5 00	2,400*	90	80	90	88	se. to s.	Partly cloudy.	.....	.....	.....	.....	78.5	78	78

* Piano wire used.

† A. M.

‡ Meridian.

MEXICAN CLIMATOLOGICAL DATA.

Through the kind cooperation of the Central Meteorologico-Magnetic Observatory, the monthly summaries of Mexican data are now communicated in manuscript, in advance of their publication in the *Boletin Mensual*. An abstract, translated into English measures, is here given, in continuation of the similar tables published in the MONTHLY WEATHER REVIEW since 1896. The barometric means have not been reduced to standard gravity, but this correction will be given at some future date when the pressures are published on our Chart IV.

Mexican data for June, 1899.

Stations.	Altitude.	Mean barometer.	Temperature.			Relative humidity.	Precipitation.	Prevailing direction.	
			Max.	Min.	Mean.			Wind.	Cloud.
Aguascalientes.....	5,106	23.87	84.6	50.9	71.4	58	7.43	se.	ese., s.
Colima.....	1,600	28.27	85.7	64.8	77.2	80	15.23	ws.	ene., sw.
Culiacan Rosales (E. d. S.).....	112	29.70	98.6	63.5	85.8	55	.....	sw.	ne.
Durango (Seminario).....	6,243	24.04	89.6	51.8	72.3	52	2.13	sw.	e.
Leon (Guanaquato).....	5,034	24.29	89.1	53.4	68.7	63	4.31	s.	ne.
Mexico (Obs. Cent.).....	7,472	23.04	79.7	52.0	63.4	67	4.15	n.	ne.
Morelia (Seminario).....	6,401	23.97	78.3	55.4	64.9	75	7.22	s., se.	ne.
Oaxaca.....	5,104	25.02	94.6	53.6	63.7	78	10.10	nw.	ne.
Puebla (Col. Cat.).....	7,112	23.35	81.9	50.9	65.5	82	9.90	ene., e.	n.
Saltillo (Col. S. Juan).....	5,399	25.01	85.2	56.8	71.1	70	6.80	n.	sw.
Tuxpan.....	19	30.14	104.9	66.2	82.0	78	9.49	e.	w.
Zapotlan (Seminario).....	5,078	25.09	88.9	57.2	69.4	69	9.60	sse.	e.

THE PRECIPITATION OVER THE PACIFIC NORTHWEST AND THE POSSIBILITY OF HIGH WATER IN THE COLUMBIA FROM THE MELTING SNOW IN THE MOUNTAINS.

By B. S. PAGUE, Forecast Official.

The Columbia River, with its tributaries, drains that portion of the United States west of the one hundred and eleventh meridian and north of latitude 42°, except a portion of northwestern Washington and southwestern Oregon. The greater portion of the eastern half of British Columbia is also drained by the tributaries of the Columbia. The total area

drained is approximately 350,000 square miles, or about 250,000,000 acres; an area nearly equal to one-half of that portion of the United States east of the Mississippi. The main tributaries of the Columbia are the Snake, Clark's Fork, Kootenai, Okanogan, Yakima, John Day, Deschutes, and Willamette. The Snake drains southern and eastern Idaho, the latter being much the larger. Western Montana, and northern Idaho are drained by the Kootenai and Clark's Fork. Eastern British Columbia is drained by lakes and streams all finally running into the Columbia. The Okanogan drains the northern portion of central Washington; the Yakima in Washington and the Deschutes in Oregon drain the eastern slope of the Cascades, and the John Day drains the southern slope of the Blue Mountains in northeastern Oregon. The Willamette drains the northwestern portion of Oregon between the Coast and Cascade mountains, north of the Calapoopia Mountains. There are many other streams which are important tributaries to the Columbia, but for the purpose of this paper it is not necessary to mention them.

The country drained by the Columbia is, for the most part, mountainous, or high plateau. There are many valleys, all having elevations of over 1,000 feet, and the greater number having 2,000 feet and upward. The plateau country ranges in elevation from 1,800 to 5,000 feet. The mountains range in elevation from 2,500 to 12,000 feet. The line of perpetual snow, in the region under discussion, ranges from 6,000 to 8,000 feet. As few of the mountains have any considerable area above the snow line, it is seen that the winter's snowfall is almost entirely melted each year and the water carried off by the Columbia.

For the six months, from May 1 of each year, the total precipitation averages about six inches over the country drained by the Columbia, hence it is seen the rainfall occurring after the snow begins to melt is too small in amount to be considered in this discussion.

The precipitation over the country drained by the Columbia from October to April amounts to from 8 to 16 inches, and is principally in the form of snow; it settles and packs